

[1, 1, 2]

0 1 2

$$0 = 0.$$

$$0 = 1.$$

$$\text{index} = 1.$$

$$0 = \cancel{2}$$

$$\text{nums}[1] = \text{nums}[2].$$

$$\text{index} \neq 2$$

$$\underline{\text{return (index = 2)}}.$$